

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the present application.

IN THE CLAIMS:

Claims 1-12. (Canceled).

Claim 13. (Currently Amended) A method for producing a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1, ~~characterized in that the method comprises~~ comprising:

culturing a the transformant according to claim 11 or 12 comprising an expression vector comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising SEQ ID NO: 2, wherein said polypeptide has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(b) a nucleotide sequence encoding a polypeptide resulting from at least one of deletion, addition, insertion, or substitution of one to 10 amino acid residues in SEQ ID NO: 2 or a partial sequence thereof, or a polypeptide comprising the polypeptide described above,

wherein any of the polypeptides has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(c) a nucleotide sequence comprising SEQ ID NO: 1 or a partial sequence thereof comprising at least SEQ ID NO: 3, SEQ ID NO: 5, or SEQ ID NO: 7, wherein the nucleotide sequence encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(d) a nucleotide sequence resulting from at least one of deletion, addition, insertion, or substitution of one to 10 bases in a DNA comprising SEQ ID NO: 1 or a partial sequence thereof, or a nucleotide sequence comprising the nucleotide sequence, wherein any of the nucleotide sequences encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1; and

(e) a nucleotide sequence capable of hybridizing under stringent conditions of 42°C, 5 x SSPE, 50% formamide, 1 x Denhardt's reagent, 10% dextran disodium sulfate, and 0.1% SDS with the nucleotide sequence of any one of (a) to (d) above, and encoding a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1;

under conditions wherein the transformant is capable of expressing the expression vector ~~according to claim 10.~~

Claims 14-15. (Canceled).

Claim 16. (Currently Amended) A recombinant cell comprising a human CD4 protein and a polypeptide that is encoded by a nucleotide sequence selected from the group consisting of: Cells expressing the polypeptide according to claim 6 and a human CD4 protein

(a) a nucleotide sequence encoding a polypeptide comprising SEQ ID NO: 2, wherein said polypeptide has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(b) a nucleotide sequence encoding a polypeptide resulting from at least one of deletion, addition, insertion, or substitution of one to 10 amino acid residues in SEQ ID NO: 2 or a partial sequence thereof, or a polypeptide comprising the polypeptide described above, wherein any of the polypeptides has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(c) a nucleotide sequence comprising SEQ ID NO: 1 or a partial sequence thereof comprising at least SEQ ID NO: 3, SEQ ID NO: 5, or SEQ ID NO: 7, wherein the nucleotide sequence encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(d) a nucleotide sequence resulting from at least one of deletion, addition, insertion, or substitution of one to 10 bases in a DNA comprising SEQ ID NO: 1 or a partial

sequence thereof, or a nucleotide sequence comprising the nucleotide sequence, wherein any of the nucleotide sequences encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1; and

(e) a nucleotide sequence capable of hybridizing under stringent conditions of 42°C, 5 x SSPE, 50% formamide, 1 x Denhardt's reagent, 10% dextran disodium sulfate, and 0.1% SDS with the nucleotide sequence of any one of (a) to (d) above, and encoding a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1;

and wherein said recombinant cell is infected with HIV when contacted therewith.

Claims 17-21. (Canceled).

Claim 22. (Currently Amended) A kit for detecting a T-cell-line-tropic ~~an AIDS onset or an~~ HIV-1 infection, comprising recombinant the cells expressing heterologous hCD4 and mCXCR-4, wherein said mCXCR-4 is encoded by a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising SEQ ID NO: 2, wherein said polypeptide has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(b) a nucleotide sequence encoding a polypeptide resulting from at least one of deletion, addition, insertion, or substitution of one to 10 amino acid residues in SEQ ID NO: 2 or a partial sequence thereof, or a polypeptide comprising the polypeptide described above, wherein any of the polypeptides has an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(c) a nucleotide sequence comprising SEQ ID NO: 1 or a partial sequence thereof comprising at least SEQ ID NO: 3, SEQ ID NO: 5, or SEQ ID NO: 7, wherein the nucleotide sequence encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1;

(d) a nucleotide sequence resulting from at least one of deletion, addition, insertion, or substitution of one to 10 bases in a DNA comprising SEQ ID NO: 1 or a partial sequence thereof, or a nucleotide sequence comprising the nucleotide sequence, wherein any of the nucleotide sequences encodes a polypeptide having an activity of a receptor capable of binding to a murine PBSF/SDF-1; and

(e) a nucleotide sequence capable of hybridizing under stringent conditions of 42°C, 5 x SSPE, 50% formamide, 1 x Denhardt's reagent, 10% dextran disodium sulfate, and 0.1% SDS with the nucleotide sequence of any one of (a) to (d) above, and

encoding a polypeptide having an activity of a receptor capable  
of binding to a murine PBSF/SDF-1

~~the polypeptide according to claim 6, or cells according to  
claim 16.~~

Claim 23. (Canceled).

Claim 24. (New) The method according to claim 13, wherein  
said partial sequence comprises a nucleotide sequence selected  
from the group consisting of: SEQ ID NO: 3, SEQ ID NO: 5, and SEQ  
ID NO: 7.

Claim 25. (New) The recombinant cell according to claim 16,  
wherein said partial sequence comprises a nucleotide sequence  
selected from the group consisting of: SEQ ID NO: 3, SEQ ID NO:  
5, and SEQ ID NO: 7.

Claim 26. (New) The kit according to claim 22, wherein said  
partial sequence comprises a nucleotide sequence selected from  
the group consisting of: SEQ ID NO: 3, SEQ ID NO: 5, and SEQ ID  
NO: 7.